

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. 09/940,474
ATTORNEY DOCKET NO. Q65911

REMARKS

Claims 4 and 9-11 are objected to because of improper dependent form. Claims 10-11 are rejected under 35 U.S.C. § 112, second paragraph. Claims 1-9 are rejected under 35 U.S.C. § 103(a).

Claim 3 has been canceled.

Claims 4 has been amended so that the phrase “ electrochemically stable substance” has been replaced with the term “spacer.”

Claim 9 has been amended to depend solely from Claim 4.

Claim 10 has been amended to correct a spelling error.

Upon entry of the above amendment, claims 1-2 and 4-11 will be all the claims pending in the application.

Claim Objections

Claims 4 and 9-11 are objected to because the phrase “the electrochemically stable substance” allegedly lacks antecedent basis.

Claims 3 and 9-11 are objected under 37 C.F.R. § 1.75(c), as allegedly being of improper dependent form for failing to further limit the subject matter of the previous claim.

Applicants' Response

Applicants have canceled Claim 3. Therefore, Applicants respectfully request that the objection under 37 C.F.R. § 1.75(c) be withdrawn.

With respect to the objection of Claim 4, Applicants have amended Claim 4 so that “the electrochemically stable substance” has been replaced with “the spacer.” Applicants note that

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“the spacer” has a proper antecedent basis. Thus, Applicants respectfully request that the objections to Claims 4 and 9-11 be withdrawn.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 10-11 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, it is asserted that Claims 10-11 are in improper dependent form because a multiple dependent claim cannot depend on another multiple dependent claim.

Applicants' Response

Claim 10-11 depend on claims 1-8. Pursuant to the Preliminary Amendment filed August 29, 2001, amended Claim 10 depends from “any one of” Claims 1-8. None of the claims from which Claims 10-11 depend are multiple dependent claims. Therefore, Applicants respectfully request that the claim rejections under 35 U.S.C. § 112 be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-9 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,691,047 to Kurauchi *et al.* (“Kurauchi”).

It is asserted that Kurauchi teaches a porous multi-layer film separator for a nonaqueous electrolyte battery comprising at least three united polyolefin layers. Although, Kurauchi does not teach a spacer comprising an electrochemically stable substance, which is placed on the surface of a heat-resistant layer, it is further asserted that it would be obvious to one of ordinary

skill in the art to employ a polypropylene porous film on the surface of the heat-resistant polyethylene layer.

Applicants' Response

Applicants respectfully assert that Kurauchi does not teach or suggest all of the elements recited in Claim 1. Applicants also note that the presently claimed separator overcomes problems of deformation under larger heat generation.

Applicants assert that Kurauchi neither teaches nor suggests a heat resistant porous layer as recited in Claim 1. According to the specification, page 6, first full paragraph, a heat-resistant porous layer is suitably comprised of at least one heat-resistant resin selected from resins having a temperature of deflection under load of 18.6kg/cm^2 (according to JIS K 7207) of 100°C or more. Thus, the polypropylene taught by Kurauchi is insufficient since its temperature of deflection under load (according to JIS K 7207) is $49\text{-}60^{\circ}\text{C}$.

Applicants further assert that Kurauchi does not teach the benefits of the combination of a heat-resistant porous layer and a spacer. Comparative Example 1 on page 29 demonstrates that a composite film form without a spacer does not exhibit adequate electrochemical oxidation resistance.

In light of these shortcomings, Applicants assert that one of ordinary skill in the art would not be motivated to overcome the deficiencies of Kurauchi to arrive at the present invention. Therefore, Applicants respectfully request that the claim rejections under 35 U.S.C. § 103 be withdrawn.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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